

Switchbacks and the Cripple Car Track in the 1868 Configuration of the D&H Gravity Railroad

By S. Robert Powell

The 1868 configuration of the D&H Gravity Railroad was created under the direction of Oliver D. Shepherd (Chief Engineer of the D&H in 1870) and Rollin Manville (Superintendent of the D&H from 01-01-1864 to 1891), with Rollin Manville completing the work begun by O. D. Shepherd on the west side of the mountain.

Level 20, in the 1868 configuration, was a light car track from Farview down the West side of the Moosic Mountain, the new track being opened for the movement of light cars on April 21, 1868. For the greater part of its length this track wound in and out among the hills, along precipitous cliffs and through ravines and little valleys. Curving to the left from the light track at the foot of return plane No. 8, it ran southwesterly to No. 4 reservoir where it curved to the right and ran northerly and, crossing over the loaded track near the head of No. 5 plane, continued for some distance. Then, after a cut into the side of the mountain, an abrupt turn or loop was made on a huge embankment and the track continued in a southerly direction. This loop, known as Shepherds Crook, was about four hundred feet in diameter and two thousand feet in length, and with a grade of one hundred and ten feet to the mile the track returned at the lower end of the loop to within eighty-two feet of itself, horizontally, thirty-seven feet below its upper end. Level 20 then passed through White's Crossing and crossed the loaded track just above the foot of Plane No. 3. The track then connected with the Blakely Level above Carbondale and continued South through Bushwick Junction to the foot of Plane No. 21 in Archbald. D&H officials at the time were Pierce Butler, Master Mechanic; O. D. Shepherd, Chief Engineer; Coe F. Young, General Superintendent; and Thomas Dickson, President.

Via Level 20, empty Gravity Railroad coal cars and passenger coaches from Honesdale and Carbondale were moved down the mountain by gravity, thereby eliminating the use of two ascending and eight descending planes (the light tracks on Planes 1-8). The light plane on No. 4 was now used to service the Racket Brook Breaker; the north plane on Plane No.1 became the Cripple Car plane to the repair shop.

Along the newly constructed Level 20, the D&H constructed three switchbacks (a switchback is a railway operation in which one or more rail cars or an entire train switches its direction of travel in order to continue its journey).

The location of these three switchbacks on Level 20:

-- at the head of Plane No. 5

--at the head of Plane No. 20

--at the junction of Planes 2 and 3 on the loaded track (at the head of Plane No. 2 and the foot of plane No. 3), the Blakely Level, and Plane No. 20. At this third location, there is, in effect, a

switchback inside of a switchback, and the complexity of the tracks at this location comes very close to defying description.

(1) Switchback: Head of Plane No. 5 and Level 20: passenger cars could be pulled up Plane No. 5 to Level No. 5 and then dropped back down through the runaround (which passed over Plane No. 5) and onto Level 20, the cars now heading in the direction of Shepherd's Crook.

(2) Switchback: Head of Plane No. 9 and Level 20: empty coal cars from Honesdale or passenger coaches from Carbondale or Honesdale could be sent down the mountain via Plane No. 20.

A trial run for passenger cars, hosted by Superintendent Manville in 1877: “A Delightful Excursion—Trial Trip of the new Cars for the Gravity RR. / On Tuesday morning, upon invitation of R. Manville, Superintendent, a large party of our townspeople assembled at the foot of No. 1, at half-past ten o'clock, to take an excursion around the ‘Switch-back’—to No. 9 and return [via the light track] on the Gravity railroad—in the beautiful new narrow-gauge cars just built for the accommodation of passengers between this city and Honesdale. These cars have the seats crosswise instead of lengthwise, as in the former cars used on the Gravity road. On one side of the aisle are seats capable of holding two persons comfortably, and on the other side of the aisle are seats that will seat but one person each. The cars are neatly painted and upholstered, have the same kind of windows, blinds and fastenings as more pretentious cars, and are built especially strong while looking light and airy. / The baggage and smoking cars are also perfect models of comfort and convenience. / About one hundred and fifty of the ladies and gentlemen of Carbondale gladly availed themselves of the invitation extended by the brothers McMullen, assistant superintendents, from their worthy chief, and after all were comfortably seated the rope was pulled, the bell rung, and up plane after plane went the fairy-like train toward the clouds, loaded with precious freight. After reaching the top of the mountain, the train was switched upon the ‘empty’ or return track, and commenced its descent. A stop of a few minutes was made at Shepherd's Crook, to enable the party to view the scenery, after which the train passed rapidly on—skirting the eastern edge of town, giving a splendid view of buildings, shade trees and streets, and the surrounding hills and forests tinged with autumn's tints—on, on, to the switch below Powderly's, and then back homeward to the foot of Davis' plane—thence to the foot of No. 1, where all disembarked and proceeded home to dinner, well pleased with the delightful trip...”, (*Carbondale Advance*, October 6, 1877, p. 3)

The Switchbacks at the head of Planes Nos. 5 and 20 and Passenger Service on the Gravity Railroad: Both of these switchbacks were especially useful to the D&H in developing passenger service and encouraging excursions on the Gravity Railroad.

(3) Switchbacks on Level 20 and the Blakely Level in the area of Planes Nos. 2 and 3 on the loaded track: The complexity of the tracks in this area almost defies description. On the level on Plane No. 2, before it reached the Foot of 3, the new light track (Level 20) merged with what was formerly known as the *Blakely Level*, which was extended all the way back to the Plane No 2 area where a connection was established between the Blakely Level and the 1868 light track. That connecting point is marked “Junction New Light Track with Blakely Level” on D&H maps of this area. Beyond that junction (and graded downward) there was a switchback known as the *Cripple Car Track*. The empty cars that were moved onto this track (which were identified as cars needing

repairs before being used again to transport coal from the Lackawanna Valley to Honesdale) then passed through a second switchback as they moved down the mountain and down the north plane on Plane No. 1 to the Cripple Car repair shop in the Gravity Shops area, where they were repaired before being put in service again. Before the Cripple Car Track switchback was established, there was no direct path by means of which coal cars that needed repairs could be moved to the Gravity Shops area.

Level No. 20, therefore, was not only an integral component of the 1868 configuration of the rail line but also would remain an important component of the Gravity Railroad for the next 30 years, right up to December 31, 1898, when the Gravity Railroad closed, and the line was reborn as a steam locomotive railroad. At that time, Shepherd's Crook itself, an integral component of Level 20, was re-born as a switchback (in effect a switchback within a switchback), which served the D&H well for 33 years--right up to the closing of the Honesdale Branch of the Delaware and Hudson Railroad on September 9, 1931.

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